(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 20 October 2005 (20.10.2005)

PCT

(10) International Publication Number WO 2005/098782 A1

(51) International Patent Classification⁷: G06T 7/20, B60R 21/01, G05D 1/02

G08G 1/16,

(74) Agents: FENSTER, Paul et al.; FENSTER & COM-PANY, INTELLECTUAL PROPERTY 2002 LTD., P.O. BOX 10256, 49002 PETACH TIKVA (IL).

(21) International Application Number:

PCT/IL2005/000063

- (22) International Filing Date: 19 January 2005 (19.01.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (**30**) Priority Data: 60/560,049

8 April 2004 (08.04.2004) US

- (71) Applicant (for all designated States except US): MOBILEYE TECHNOLOGIES LIMITED [CY/CY]; JULIA HOUSE, 3 THEMISTOCLES DERVIS STREET, NICOSIA, 1066-CY (CY).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): STEIN, Gideon, P. [IL/IL]; 18 SHAHAR STREET, 96263 JERUSALEM (IL). DAGAN, Erez [IL/IL]; 11B/5 LINCOLN STREET, 94186 JERUSALEM (IL). MANO, Ofer [IL/IL]; 9/18 MIGDAL OZ, 71700 MODIIN (IL). SHASHUA, Amnon [IL/IL]; 7 MAVO NA'AMA STREET, 90805 MEVASSERET TZION (IL).

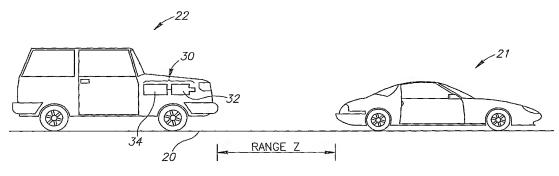
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: COLLISION WARNING SYSTEM



(57) Abstract: A method of estimating a time to collision (TTC) of a vehicle with an object comprising: acquiring a plurality of images of the object; and determining a TTC from the images that is responsive to a relative velocity and relative acceleration between the vehicle and the object.